

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE ABSTRACT:

[A release mechanism between a projectile (1) and a rocket motor (10) in a missile is disclosed. The projectile (1) releases from the rocket motor (10) during the flight thereof when the rocket motor (10) is burned out and retardation occurs. The front end of the rocket motor (10) comprises a forward closure (7,7), one in the forward closure (7,7) received an movable locking means retainer (2), at least one locking means (3), at least one spring means (6) that bias against the locking means retainer (2) in a direction opposite to the direction of motion for the missile. The rear end of the projectile (1) has a central boss (4) surrounded by said forward closure (7,7) of the rocket motor (10), where the boss (4) comprises recesses or a circumferential groove (14) in which the at least one locking means (3) is lying and keeps the forward closure (7,7) and boss (4) axially together.

--Abstract of the Disclosure

A release mechanism between a projectile and a rocket motor in a missile. The projectile releases from the rocket motor during flight of the missile when the rocket motor burns out and aerodynamic retardation commences. The front end of the rocket motor comprises a forward closure, a lock retainer received and movable within the forward closure, at least one lock, at least one spring that biases the lock against the lock retainer in a direction opposite the to the direction of motion of the missile. The rear end of the projectile has a central boss surrounded by the forward closure of the rocket motor, wherein the boss comprises recesses or a circumferential groove in which the at least one lock lies and keeps the forward closure and the boss axially together.—

IN THE SPECIFICATION:

Page 1, immediately after the title, please insert **--Related Applications** This application claims the benefit of the Norwegian applications 1999 2739 filed June 4, 1999 and 1999 5140 filed October 21, 1999 and the international application PCT/NO00/00191 filed June 2, 2000. This application is related to co-pending applications "TRANSLATION AND LOCKING MECHANISM IN A MISSILE" serial number _____, attorney docket number PROTEC7.001APC, "RETARDING AND LOCK APPARATUS AND METHOD FOR

PCT Appl. No. : CT/NO00/00191

Filed : Herewith

RETARDATION AND INTERLOCKING OF ELEMENTS" serial number _____, attorney docket PROTEC8.001APC, and "PROPELLING DEVICE FOR A PROJECTILE IN A MISSILE" serial number _____, attorney docket number PROTEC9.001APC, all filed concurrently herewith. Background of the Invention Field of the Invention--.

Page 1, line 6, please insert --Description of the Related Art--.

Page 1, line 25, please insert --Summary of the Invention--.

Page 2, line 25, please insert --Brief Description of the Drawings--.

Page 3, immediately before line 1, please insert --Detailed Description of the Preferred Embodiments--.

IN THE CLAIMS:

Please amend the Claims as follows:

1. (Amended) A release mechanism between a projectile [(1)] and a rocket motor [(10)] in a missile, where the projectile [(1)] is released from the rocket motor [(10)] during the flight [thereof] **of the missile** when the rocket motor [(10)] is burned out and retardation occurs, [characterized in that] **wherein** the rocket motor [(10)] in the front end thereof comprises a forward closure [(7, 7')] , one in the forward closure [(7, 7')] received and movable lock[ing means] retainer (2)], at least one lock[ing means (3)], at least one spring [means (6)] that biases against the lock[ing means] retainer [(2)] in a direction opposite to the direction of travel for the missile, and [that] **wherein** the projectile [(1)] in the rear end thereof has a central boss [(4)] surrounded by [said] **the** forward closure [(7, 7')] of the rocket motor [(10)], **wherein** the boss [(4)] comprises recesses or a circumferential groove [(14)] in which the at least one lock[ing means (3) is lying] **lies** and keeps the forward closure [(7, 7')] and boss [(4)] axially together.

2. (Amended) [A release mechanism according to claim 1, characterized in that] **The release mechanism of Claim 1, wherein** the lock[ing means (3)] is in the form of a ball.

3. (Amended) [A release mechanism according to claim 1, characterized in that] **The release mechanism of Claim 1, wherein the lock[ing means (3)] is in the form of a rod, a chip, a lug, or a button.**

4. (Amended) [A release mechanism according to any of the claims 1, 2, or 3, characterized in that] **The release mechanism of Claim 1, wherein the lock[ing means] retainer [(2) is] comprises a retaining ring having a continuous internal retainer race.**

5. (Amended) [A release mechanism according to claim 4, characterized in that] **The release mechanism of Claim 4, wherein the lock[ing means] retainer [(2) is] comprises a ball retaining ring having a continuous internal ball retainer race.**

6. (Amended) [A release mechanism according to any of the claims 1, 2, or 3, characterized in that] **The release mechanism of Claim 1, wherein the lock[ing means] retainer [(2) is] comprises a number of separated, axially projecting retainers [(16)].**

7. (Amended) [A release mechanism according to claim 6, characterized in that] **The release mechanism of Claim 6, wherein the lock[ing means] retainer [(2)] comprises an annular part [(15)] and a number of separated, axially projecting ball retainers [(16)].**

8. (Amended) [A release mechanism according to any of the claims 1-7, characterized in that] **The release mechanism of Claim 1, wherein the boss [(4)] is hollow and cylindrical.**

9. (Amended) [A release mechanism according to any of the claims 1-8, characterized in that] **The release mechanism of Claim 1, wherein the forward closure [(7, 7')] is assembled of] comprises a polar boss [(7)] and a forward motor closure [(7')] that are threaded together and [with] a seal [(18)] interposed therebetween.**

10. (Amended) [A release mechanism according to any of the claims 1-8, characterized in that] **The release mechanism of Claim 1, wherein the projectile [(1)] is a penetrator.**

Please add the following new claims:

11. (New) A missile comprising:

a rocket motor that includes a casing wherein the rocket motor propels the missile;

a projectile that is coupled to the rocket motor and is separable therefrom; and

a release mechanism interposed between the projectile and the rocket motor wherein the release mechanism includes at least one locking member that is coupled to both the projectile and the rocket motor and a spring biasing member that engages with

PCT Appl. No. : [REDACTED] CT/NO00/00191

Filed : Herewith

the at least one locking member so as to maintain the at least one locking member in engagement between the rocket motor and the projectile, wherein the spring biasing member is biased in the direction opposite the motion of the missile such that when the rocket motor ceases propelling the missile, the force of the spring biasing member is overcome thereby allowing the locking member to disengage between the projectile and the rocket motor thereby releasing the projectile from the rocket motor.

12. (New) The missile of Claim 11, wherein the release mechanism further comprises a movable locking retainer that engages with the at least one locking member and the spring biasing member such that when the rocket motor disengages the movable locking retainer compresses the spring biasing member thereby permitting the at least one locking member to disengage between the projectile and the rocket motor.

13. (New) The missile of Claim 12, wherein the rocket motor includes one or more recesses in which the at least one locking members are captured, wherein the spring biasing member engages with the movable locking retainer so as to retain the at least one locking members within the recess to secure the projectile and rocket motor together.

14. (New) The missile of Claim 13, wherein the at least one locking member comprises a plurality of balls positioned within the recesses.

2025-10-10 10:10:10